

Introduction

Resource Management Systems

NRCS provides technical assistance to decision-makers to protect, maintain, and improve soil, water, air, plant, and animal resources and related human considerations. The guidelines outlined in Section III are to be used to establish minimum treatment levels necessary to adequately address natural resource concerns and human considerations. These concerns and considerations are identified during the planning process for the development of a Resource Management System (RMS), Conservation System or Conservation Treatment. National policy pertaining to this guidance can be found in General Manual (GM) Title 450, Part 401 – Technical Guides, Amendment 11, May 2002.

NRCS provides conservation planning and technical assistance to clients (individuals, groups, and units of government). The conservation planner, through on-site visits and interviews with the client, identifies resource concerns and determines considerations to be addressed in the conservation plan. The client implements the conservation plan to protect, conserve, and enhance natural resources (soil, water, air, plants, and animals) within their social and economic interests.

Conservation planning is a process to solve and manage natural resource problems. This process integrates economic, social, and ecological considerations to meet private and public needs. Conservation planning emphasizes desired future conditions, helps improve natural resources management, minimizes conflict, and addresses problems and opportunities. Conservation planning involves more than considering individual resources, or parts of a system or landscape, it focuses on the complete natural systems and ecological processes that sustain natural resources and agricultural production of food and fiber. National policy pertaining to conservation planning can be found in General Manual (GM) Title 180, Part 409.

A RMS is a combination of conservation practices and resource management, which provides treatment of all resource concerns for soil, water, air, plants, and animals to that ensure that they meet or exceed the quality criteria for resource sustainability as described within this section. The objective of the NRCS conservation planning process, is to help each client balance natural resource concerns with their economic and social needs, while achieving the RMS level of treatment within the planning unit, when and wherever possible.

The level of treatment and desired conservation effects described within quality criteria are stated in qualitative or quantitative terms as appropriate. If a client is unable to implement the necessary conservation practices or management, i.e., level of treatment, to attain a RMS, progressive planning should be provided as long as the client shows interest and is willing to work toward achieving a higher level of resource management. Guidance pertaining to the conservation planning process, progressive planning and RMS is found in the National Planning Procedures Handbook (NPPH).

Definitions

Benchmark Condition

The present condition or situation used as a point of reference to measure change in resource conditions resulting from conservation treatment.

Common Resource Areas

A geographical area where resource concerns, problems, and treatment needs are similar. Landscape conditions, soil, climate, human considerations, and other natural resource information is used to determine the geographical boundaries of the common resource area.

Conservation System

A combination of conservation practices and resource management that achieve a specific level of treatment of soil, water, air, plant, and/or animal resource concerns.

Conservation Plan

A record of the client's decisions and supporting information, for treatment of a unit of land or water as a result of the planning process that meets the FOTG quality criteria for each natural resource (soil, water, air, plant, and animal), including economic and social considerations. A conservation plan includes decisions that meet the required level of treatment for a specific program or initiative if the client is made aware of alternative treatments, but is not ready to commit to a Resource Management System level of treatment. The plan describes the schedule of operations and activities needed to solve the identified natural resource concerns and problems.

Conservation Treatment

Any and all conservation practices, management measures, and works of improvement that have the purpose of alleviating resource concerns, solving or reducing the severity of natural resource use problems, or taking advantage of resource opportunities.

Progressive Planning

A point in the planning process where the client is ready willing and able to make some but not all of the decisions necessary to achieve resource sustainability for soil, water air, plants and animals.

Quality Criteria

Quantitative or qualitative statements of the treatment level required to achieve a resource management system for identified resource considerations for a particular land use.

Resource Management System

A conservation system that meets or exceeds the quality criteria in the FOTG for resource sustainability for all identified resource concerns for soil, water, air, plants and animals.

Resource Consideration

Identified elements or conditions of the natural resources that may be sensitive to change by natural forces or human activity (e.g. soil erosion, water quality, etc).

Resource Concern

A subset of a resource consideration that specifically identifies or narrows the scope of analysis of a resource consideration. Concerns are identified by predictive models, direct measurements, observation or client objectives.

Resource Problem

A condition related to one or more resource concerns that does not meet the minimum acceptable quality criteria shown in the FOTG, Section III.

Quality Criteria for Natural Resources

The NRCS has defined soil, water, air, plants, and animals as the five-(5) basic natural resources that must be evaluated during the conservation planning process. Along with the natural resources, human considerations that include economic (e.g., land, labor, capital, risk, and profitability) and social (e.g., acceptability, environmental; justice, cultural resources, client characteristics and community values) must also be taken into account.

For each of the natural resources (soil, water, air, plants, and animals), the NRCS has outlined resource considerations, potential concerns or problems, quality criteria and assessment tools or techniques to measure the existing condition and/or predictive status for each resource concern. Addressing each resource consideration when identified as a concern or problem is an important part of the conservation planning process. A RMS is achieved for the planning unit or Conservation Management Unit (CMU) when each resource concern or problem identified has been treated to a level that meets or exceeds quality criteria. The use and implementation of NRCS quality criteria must comply with all federal, state, and local laws and regulations.

Resource	Consideration	Concern or Problem
Soil	Erosion	Sheet and Rill Wind Concentrated Flow Streambank Soil Mass Movement Road Bank & Construction Sites Irrigation Induced
	Condition	Tilth Compaction Organic Matter Oxidation Chemicals Animal Waste & Other Organics Fertilizer Pesticides
	Deposition	Sensitive Sites Water Control Structures & Equipment Human & Animal Safety
Water	Quantity	Water Management - Irrigation Adequate Supply and/or Storage Effective Location or Distribution Evaporation Surface Sub-Surface Adequate Conveyance Capacity

Resource	Consideration	Concern or Problem	
Water	Quality	Salinity	
		Nutrients	
		Pathogens	
		Pesticides	
		Heavy Metals	
		Temperature	
		Sediments	
		Dissolved Oxygen	
		Debris	
		Air	Quality
Sediment & Smoke Particles			
Chemical Drift			
Noise			
Condition	Temperature		
	Humidity		
	Movement		
Plants	Suitability		Adapted to Site
			Meets Intended Use
	Condition		Productivity
		Health & Vigor	
		Distribution	
		Quality & Palatability	
	Management	Establishment, Growth and Harvest/Grazed	
		Pests, Pathogens, or Weeds	
		Nutrients	
		Threatened or Endangered	
Animals (Domestic & Wild)	Habitat	Food	
		Cover or Shelter	
		Water	
	Management	Carrying Capacity	
		Population Characteristics	
		Health & Vigor	
		Threatened or Endangered	

Soil

Resource Concern - Erosion

Concerns or Problems	Definition	Quality Criteria	Assessment Tool or Technique
Sheet and Rill	Water induced soil loss in uniform thin sheet and/or numerous small channels.	<ul style="list-style-type: none"> Criteria are met when measures are planned so that the estimated sheet and rill erosion rates are reduced to the Soil Loss Tolerance ("T") based on the dominant soil, whereby long-term soil degradation is prevented and a high level of the soil's productivity can be sustained. 	<ul style="list-style-type: none"> Current erosion prediction tool i.e. Revised Universal Soil Loss Equation (RUSLE 2)
Wind	Soil loss or movement by detachment & transport by wind.	<ul style="list-style-type: none"> Criteria are met when measures are planned so that the estimated wind erosion are reduced to tolerance ("T"), whereby long-term soil degradation is prevented and a high level of the soil's productivity can be sustained. 	<ul style="list-style-type: none"> Current erosion prediction tool i.e. Wind Erosion Equation (WEQ).
Concentrated Flow A. Ephemeral Gully or Concentrated Flow B. Classic Gully	Concentrated flow channels along depressional watercourses that begin where overland flow, including rills, converge. Channels that may grow or enlarge from year to year by head cutting, and/or lateral widening and deepening.	<ul style="list-style-type: none"> Criteria are met when these channels are stabilized and the overall field erosion is reduced to tolerance ("T"). Criteria are met when measures are planned that limit head cutting and channel degradation by stabilizing the gully heads and sidewalls. 	<ul style="list-style-type: none"> Visual Observation Volume Calculation using FL-ECS-11 form. Visual Observation Volume Calculation using FL-ECS-11 form.
Streambank	Soil loss due to scouring of material & the cutting of channel banks by running water, unstable soils, obstructions, trampling by livestock, wildlife or humans, or heavy equipment.	<ul style="list-style-type: none"> Criteria are met when streambanks are stabilized and the assessment tool shows that the condition of stream is healthy. 	<ul style="list-style-type: none"> Stream assessment tool (i.e. Stream Visual Assessment Protocol. Proper Functioning Condition (PFC)) Visual Observation
Soil Mass Movement	Soil slippage, landslides or slope failure resulting in large soil movement.	<ul style="list-style-type: none"> Criteria are met when measures are planned and prevent or minimize soil mass movement at a rate that does not exceed natural conditions. 	<ul style="list-style-type: none"> Visual Observation
Road Banks & Construction Sites	Soil loss to due to scouring, heavy equipment and loss of suitable vegetative cover.	<ul style="list-style-type: none"> Conditions that stabilize the site and safely convey overland flow. The planned use of the land does not contribute sediment offsite. 	<ul style="list-style-type: none"> Current erosion prediction tools (RUSLE2 and WEQ). Volume Calculations. Visual Observations.

Irrigation Induced	Soil loss due to irrigation application exceeding soil intake rate; application rates that exceed erosive velocity of the soil.	<ul style="list-style-type: none"> Criteria are met when irrigation system application rate is less than soil intake rate and sprinkler irrigation systems and surface application rates are at non-erosive rates. 	<ul style="list-style-type: none"> Visual Observations. FIRM IWM Plan
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Resource Concern – Condition

Concerns or Problems	Definition	Quality Criteria	Assessment Tool or Technique
Tilth	Physical condition of the soil as it relates to its ease of tillage, fitness as a seedbed, level of impedance to seedling emergence and root penetration.	<ul style="list-style-type: none"> The soil condition no longer impairs the growth and vigor of the chosen plant species; surface water infiltration is not restricted; soil organic matter content is increased; and soil crusting is reduced. 	<ul style="list-style-type: none"> Soil Condition Index. Aggregate Stability Test in the Soil Quality Test Kit. Soil Quality Scorecard.
Compaction	Loss of void space within the soil profile diminishing the amount of air and water available to plant roots, and a reduction of water infiltration rates.	<ul style="list-style-type: none"> Criteria are met when measures are planned that provide management considerations to reduce the machinery or livestock traffic, reduce operations on wet soils, and plan proper timing of operations. 	<ul style="list-style-type: none"> Penetration Resistance Test in the Soil Quality Test Kit. Soil Quality Scorecard.
Organic Matter	Soil organic matter has been reduced resulting in loss of production, and the soil's ability to retain nutrients and pesticides.	<ul style="list-style-type: none"> Criteria are met when measures are planned that maintain or increase organic matter and the soil's productivity can be maintained. 	<ul style="list-style-type: none"> Soil Condition Index. Soil Quality Test Kit. Soil Quality Scorecard.
Oxidation	Loss of organic soils due to above normal microbial activity resulting from excessive drainage or extended drought.	<ul style="list-style-type: none"> Criteria are met when measures are planned that reduce the decline of organic soils by maintaining adequate soil moisture. 	<ul style="list-style-type: none"> Visual Observations.
Chemicals	Soil has been degraded due to excessive accumulation of salts, selenium, boron, or heavy metals.	<ul style="list-style-type: none"> Criteria are met when planned measures limit soil contaminants to a level that no longer contributes to the restriction of a suitable use of the soil. 	<ul style="list-style-type: none"> Soil Testing by Land Grant University. Conservation plan documents nutrient additions, related erosion control, and water quality strategies. Leaching Index and/or Phosphorous Index. Farm*A*Syst assessment.
Animal Waste and Other Organics	Excess animal waste or other organics restrict the use of the soil.	<ul style="list-style-type: none"> Criteria are met when planned measures limit animal waste and other organics to a level that no longer 	<ul style="list-style-type: none"> Leaching Index – Soil Rating for Nitrate and

		contributes to the restriction of a suitable use of the soil.	<p>Soluble Nutrients.</p> <ul style="list-style-type: none"> Florida Phosphorus Index. FOTG – Section IV Conservation Practices. Florida DEP Rule, Chapter 62-640. Florida DOH, Chapter 64E-6. NEH, Part 651 – Agriculture Waste Management Field Handbook.
Fertilizer	Excess fertilizer occurs if the application of fertilizer or quantity of nutrients restricts the suitable use of the soil.	<ul style="list-style-type: none"> Criteria are met when planned measures limit fertilizer to a level that no longer contributes to the restriction of a suitable use of the soil. 	<ul style="list-style-type: none"> Leaching Index – Soil Rating for Nitrate and Soluble Nutrients. Florida Phosphorus Index. FOTG – Section IV Conservation Practices. UF, IFAS, SL-129
Pesticides	Excess pesticides occur if the application method or the quantity of the residues restricts the suitable use of the soil.	<ul style="list-style-type: none"> Criteria are met when planned measures limit pesticides to a level that no longer contributes to the restriction of a suitable use of the soil. 	<ul style="list-style-type: none"> WIN-PST. NAPRA. Soil Ratings for Pesticides.

Resource Concern – Deposition

Concerns or Problems	Definition	Quality Criteria	Assessment Tool or Technique
Sensitive Sites	Damage to surface waters, wetlands, important agricultural and wildlife land, and other sensitive areas resulting from soil deposition.	<ul style="list-style-type: none"> Criteria are met when measures are planned that eliminate adverse contribution to the identified deposition problem. This usually involves controlling erosion processes that significantly contribute to the higher rates of sediment yields to prevent harmful sediment deposits to land, water, and vegetation. 	<ul style="list-style-type: none"> Revised Universal Soil Loss Equation. Volume Calculation. Visual Observations.
Water Control Structures & Equipment	Deposition of soil on structures and equipment that effect agricultural production, surface water management and other activities.	<ul style="list-style-type: none"> Criteria are met when planned measures resolve the identified deposition problem. This usually involves controlling erosion that has higher rates of sediment yields to prevent harmful sediment deposits to land and property 	<ul style="list-style-type: none"> Revised Universal Soil Loss Equation. Volume Calculation. Visual Observations.
Human & Animal Safety	Deposition on roads and other vectors of	<ul style="list-style-type: none"> Criteria are met when planned measures resolve the identified deposition 	<ul style="list-style-type: none"> Revised Universal Soil Loss Equation.

	transportation restricting access for emergency vehicles and evacuation routes.	problem. This usually involves controlling erosion that has higher rates of sediment yields to prevent harmful sediment deposits to land and property	<ul style="list-style-type: none"> • Volume Calculation. • Visual Observations.
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Water

Resource Concern – Quantity

Concern or Problem	Definition	Quality Criteria	Assessment Tool or Technique
Water Management - Irrigation	Excessive water loss occurring from irrigation.	<ul style="list-style-type: none"> • Criteria are met when water loss is minimized and the efficiency of the application system or delivery system meets the requirements of the intended crop or other use. 	<ul style="list-style-type: none"> • Farm Irrigation Rating Method (FIRM). • Irrigation Water Management Plan. • Irrigation Evaluation • Florida Irrigation Guide
Adequate Supply and/or Storage	Water supply and/or storage capacity is inadequate to meet management goals.	<ul style="list-style-type: none"> • Criteria are met when the water supply and/or storage capacity is adequate to meet demands under extreme conditions (i.e. drought and/or equipment failure). 	<ul style="list-style-type: none"> • Irrigation Water Management Plan. • RESROUT • Adequate Sizing of livestock and wildlife watering facilities.
Effective Location or Distribution	Location and distribution of water in terms of amounts and timing are inadequate to meet management goals.	<ul style="list-style-type: none"> • Criteria are met when the location and application of water is applied according to an irrigation water management plan. 	<ul style="list-style-type: none"> • Farm Irrigation Rating Method (FIRM). • Irrigation Water Management Plan. • Irrigation Evaluation • Florida Irrigation Guide.
Evaporation	Water losses due to surface evaporation are excessive and have a negative effect on agricultural or environmental objectives.	<ul style="list-style-type: none"> • Criteria are met when the water losses are reduced to a minimum. • Criteria are met when volume of water is sufficient to exceed evaporation and maintain a desirable water level to meet agricultural or environmental objectives. 	<ul style="list-style-type: none"> • Irrigation Water Management Plan. • Visual Observation. • Florida Irrigation Guide
Surface	Run-off or overland flow is creating excessive water concentrations and/or deficits	<ul style="list-style-type: none"> • Surface water is managed to remove excess amounts in accordance with the planned use of the area. 	<ul style="list-style-type: none"> • Florida Drainage Guide.
Sub-Surface	Seepage and/or leaching are creating excessive water concentrations and/or deficits.	<ul style="list-style-type: none"> • Criteria are met when subsurface water (except those in regulated wetlands or other hydric soils) does not interfere with management activities or goals. 	<ul style="list-style-type: none"> • Florida Drainage Guide.
Adequate Conveyance Capacity	Water conveyance channel and structures to collect and remove water from site are unsuitable.	<ul style="list-style-type: none"> • Criteria are met when water conveyance channel and structures are restored and maintained to provide adequate capacity to supply water. 	<ul style="list-style-type: none"> • Visual Observations. • Design Volume Calculations. • FOTG – Section IV

Water

Resource Concern – Quality

Concern or Problem	Definition	Quality Criteria	Assessment Tool or Technique
Salinity	Ground/Surface water contamination due to excessive concentrations of common salts such as sodium, calcium, potassium, boron, and selenium.	<ul style="list-style-type: none"> Criteria are met when testing or monitoring data that indicates that ground/surface water meets State water quality standards and on-site environmental assessment indicates a low or no risk of environmental harm. Criteria are met when plant materials have been selected which are suited to the site conditions. 	<ul style="list-style-type: none"> SCS-TP-161 – Water Quality Indicators Guide: Surface Waters. Florida Irrigation Guide. National Engineering Handbook, Part 652, Irrigation Guide.
Nutrients	Ground/Surface water contamination due to improper mixing, transport, application or disposal of mineral, animal by-products, or municipal wastes.	<ul style="list-style-type: none"> Criteria are met when nutrients and/or animal wastes are applied at rates, forms, and times following a nutrient budget, along with mitigating practices to minimize the risk of excessive leachate below the root zone and minimize nutrient transport in runoff or subsurface flows to surface waters. Criteria are met when sheet, rill, and gully erosion meet the quality criteria for soil to minimize sediment transport to surface water resources. Criteria are met when fertilizers are stored, handled, and, applied to minimize risk of accidental spill or leakage. Criteria are met when livestock waste storage is adequate to prevent significant loss from leaching and/or surface runoff and is appropriately sized to safely store waste during environmentally unsafe application periods. Livestock confinement areas are managed to minimize the risk of surface and ground water contamination. Criteria are met when livestock use areas (non-confinement) are managed to minimize or eliminate degradation to wells, wellhead areas, and wetlands, or other surface waters. Criteria are met when biosolids, industry by-products, and non-manure residuals are applied according to applicable local, state, and/or Federal permit. 	<ul style="list-style-type: none"> SCS-TP-161 – Water Quality Indicators Guide: Surface Waters. Leaching Index – Soil Rating for Nitrate and Soluble Nutrients. Florida Phosphorus Index. FOTG – Section IV Conservation Practices. Florida DEP Rule, Chapter 62-640. Florida DOH, Chapter 64E-6. NEH, Part 651 – Ag Waste Management Field Handbook.

		<ul style="list-style-type: none"> Criteria are met when feed storage and handling areas are managed to minimize the production of leachate and appropriate conservation practices are installed and operated to prevent contamination of surface and/or ground water resources. 	
Pathogens	Ground/Surface water contamination by disease causing microorganism such as bacteria (e.g., E. Coli), viruses, protozoa, helminths and fungi.	<ul style="list-style-type: none"> Criteria are met when measures are planned so that the treated area no longer contributes to ground/surface water contaminants from pathogens. Waste utilization is an essential practice that provides for application of organic waste at times when soil and climatic conditions are likely to cause organisms to die and waste will not be applied to areas subject to entry to ground water. 	<ul style="list-style-type: none"> FOTG – Section IV Conservation Practices. NEH, Part 651 – Ag Waste Management Field Handbook. Florida DEP Rule, Chapter 62-640. Florida DOH, Chapter 64E-6.
Pesticides	Ground/Surface water contamination due to improper mixing, transport, application or disposal of pesticides materials.	<ul style="list-style-type: none"> Criteria are met when pesticides are stored, applied, and disposed so that surface water standards are not violated. Criteria are met when pesticides are selected that minimize adverse environmental effects and to determine need for mitigating practices so no significant contamination occurs to surface waters. Criteria are met when Pesticides are properly stored, handled, and disposed of to minimize risk of accidental spill or leakage. 	<ul style="list-style-type: none"> WIN-PST. NAPRA. SCS-TP-161 – “Water Quality Indicators Guide: Surface Waters” Soil Ratings for Pesticides.
Heavy Metals	Ground/Surface water contamination due to excessive concentrations of common metals such as iron, lead, zinc, cadmium, copper, cobalt and mercury.	<ul style="list-style-type: none"> Criteria are met when the treated area does not adversely contribute to ground water contamination from heavy metals. 	<ul style="list-style-type: none"> Florida DEP Rule, Chapter 62-640. Florida DOH, Chapter 64E-6. SCS-TP-161 – Water Quality Indicators Guide: Surface Waters.
Temperature	Water temperatures range outside acceptable limits.	<ul style="list-style-type: none"> Criteria are met when measures are planned so that the treated area no longer contributes to problems associated with undesirable water temperature. 	<ul style="list-style-type: none"> FOTG – Section IV Conservation Practices.
Sediments	Surface water contamination due to soil or other sediments entering the water resulting from turbid conditions.	<ul style="list-style-type: none"> Criteria are met when sheet, rill, and gully erosion meet the quality criteria for soil to minimize sediment transport to surface water resources. 	<ul style="list-style-type: none"> SCS-TP-161 – Water Quality Indicators Guide: Surface Waters. Current Erosion Prediction Tools.

Dissolved Oxygen	Dissolved oxygen is below acceptable levels.	<ul style="list-style-type: none"> Criteria are met when measures are planned so that the treated area no longer contributes to problems from sediment and organic carbon. 	<ul style="list-style-type: none"> SCS-TP-161 – Water Quality Indicators Guide: Surface Waters.
Debris	Excessive trash or refuse impairs the desired use of surface water source.	<ul style="list-style-type: none"> Criteria are met when debris is removed and no longer impairs the use of the surface water. 	<ul style="list-style-type: none"> NEH. FOTG – Section IV Conservation Practices.

Air

Resource Concern – Quality

Concerns or Problems	Definition	Quality Criteria	Assessment Tool or Technique
Odors	Objectionable odors originating in the planning area from sources such as confined livestock, animal waste, waste storage areas, field application of animal or municipal waste and other agricultural organic compounds.	<ul style="list-style-type: none"> Criteria are met when the intensity and duration of odors do not contribute to problems such as continuing complaints. Criteria are met when planned practices are in compliance with local and/or state laws. Criteria are met when reasonable odor control measures are employed on the planning area. 	<ul style="list-style-type: none"> On-site determination NRCS-Agricultural Waste Management Field Handbook
Sediment & Smoke Particles	Airborne sediment, smoke, and particulate levels that degrade air quality within or outside of the planning area to unsafe or unhealthy levels.	<ul style="list-style-type: none"> Criteria are met when good visibility is maintained near populated areas and public roads. Criteria are met when the life span of equipment and structures are not shortened. Criteria are met when Federal, state and local air quality standards for human/animal health are met. 	<ul style="list-style-type: none"> Prescribed Burn Smoke Screening Tool Local Air Quality Indices Monitoring Data for Particulate Matter Clean Air Act Monitoring) Odor detection devices
Chemical Drift	Airborne Chemical drift of agricultural chemicals applied above the soil surface.	<ul style="list-style-type: none"> Criteria are met when label instructions are followed when applying agricultural chemicals Criteria are met when Federal, State and Local regulations are followed. Criteria are met when University of Florida – Institute of Food and Agricultural Sciences recommendations and guidelines are followed. Criteria are met when planned practices prevent damage or harm to non-target plants and animals. 	<ul style="list-style-type: none"> Pesticide labels Pesticide application records Visual Observation No damage to non-target plants and/or animals

Noise	Objectionable noise from agricultural activities, such as pumping plants, livestock, and machinery.	<ul style="list-style-type: none"> Criteria are met when the intensity and duration of noise does not contribute to problems such as continuing complaints. Criteria are met when planned practices are in compliance with local and/or state laws. Criteria are met when reasonable noise control measures are employed on the planning area. 	<ul style="list-style-type: none"> On-site determination Noise level detection devices
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Resource Concern – Condition

Concerns or Problems	Definition	Quality Criteria	Assessment Tool or Technique
Temperature	Activities within the planning area that adversely affect air temperature for human health as well as the health, growth, and production of plants and animals.	<ul style="list-style-type: none"> Criteria are met when problems are minimized or eliminated that limit suitable air temperature. 	<ul style="list-style-type: none"> On-site determination Thermometers Heat/chill indexes
Humidity	Activities within the planning area that adversely affect relative humidity for human health as well as the health, growth, and production of plants and animals.	<ul style="list-style-type: none"> Criteria are met when acceptable and/or desired levels of relative humidity are achieved. 	<ul style="list-style-type: none"> Relative humidity sensors
Movement	Air movement within the planning unit ranges outside acceptable limits for human health as well as the health and production of plants and animals.	<ul style="list-style-type: none"> Criteria are met when acceptable or desired levels of air movement are achieved 	<ul style="list-style-type: none"> On-site determination NRCS-Agricultural Waste Management Field Handbook Wind sensor

Plants

Resource Concern – Suitability

Concern or Problem	Definition	Quality Criteria	Assessment Tool or Technique
Adapted to Site	Plants are not adequately adapted to the soil, water, air, and animal influences and management regime for long-term sustainability.	<ul style="list-style-type: none"> Criteria are met when plant materials have been selected which are suited to the site and are not on the Federal or state lists of noxious or invasive plants. Criteria are met when planned practices modify the site characteristics to better suit the plants requirements Criteria are met when species of concern are not negatively impacted. 	<ul style="list-style-type: none"> Field Office Technical Guide National Range and Pasture Handbook Visual Observation Soil Survey Univ. Of Florida Recommended Varieties National Plants Database
Meets Intended Use	Plants do not meet the desired use for which they were planted and/or for which they are managed.	<ul style="list-style-type: none"> Criteria are met when species are appropriate for the intended use, within site condition restraints. For Rangeland - Criteria are met when a score of 50% or greater on the Rangeland Similarity worksheet with a stable or upward trend. For Pasture - Criteria are met when a score of 3 or greater on the Pasture Land Health Worksheet. 	<ul style="list-style-type: none"> Interview Client On-site Visual Evaluation Field Office Technical Guide National Range and Pasture Handbook Univ. Of Florida Recommended Varieties Rangeland Similarity worksheet Pasture Land Health Worksheet

Resource Concern - Condition

Concern or Problem	Definition	Quality Criteria	Assessment Tool or Technique
Productivity	Plants do not meet production expectations for food and fiber, and/or provide ecological site attributes for which the are managed.	<ul style="list-style-type: none"> For Crop - Criteria are met when a healthy and vigorous stand capable of meeting 50% or more of expected yields based on Land Capability Class for the site is achieved. For Forest - Criteria are met when desired forest species are present and are sustaining 50% or more of the planned stocking rate and expected yields are within 75% of the Site Index. For Grazed Forest - Criteria are met when a score of 50% or greater of Preferred and/or Desirable plants are present on the site (See Forest Ecological Site Descriptions), planned trends are either positive or not apparent for 	<ul style="list-style-type: none"> Comparison to Similar Crops, Forages, or Other Plantings in the Area Under Different Management. National Range and Pasture Handbook National Forestry Manual and Handbook Pasture Condition Worksheet Evaluation of Grazing Records Evaluation of Crop/Forages yields. Rangeland Similarity

		<p>Preferred and/or Desirable plants species, and desired forest species are being sustained.</p> <ul style="list-style-type: none"> For Grazed Range - Criteria are met when a score of 50% or greater of the historic or desired plant community is present (See Range Ecological Site Descriptions), and range trend is toward/positive or not apparent. For Pasture and Hay - Criteria are met when a healthy and vigorous stand capable of meeting 50% or more of expected yields based on the Forage Suitability Group for the site is achieved. 	<p>Worksheet</p> <ul style="list-style-type: none"> Forage Inventory Worksheet Ecological Site Descriptions and Forage Suitability Groups, Section II of the FOTG
Health & Vigor	Plants are not performing to their growth potential due to low nutrition, soil moisture, weed competition, pests, pathogens, and/or leaf area.	<ul style="list-style-type: none"> Criteria are met when managed plants exhibit growth potentials commensurate with site characteristics, no evidence of stress due to management, and are not overly susceptible to drought, disease or pest damage or competition. Criteria are met when water management issues are addressed. 	<ul style="list-style-type: none"> On-site Visual Observation Field Office Technical Guide National Range and Pasture Handbook
Distribution	Plants are not adequately located on the site to yield desired levels of food and fiber, or to provide ecological site attributes for which they are managed.	<ul style="list-style-type: none"> For New Plantings- Criteria are met when seedlings and other newly established plants are evenly distributed across the site. Criteria are met when trees are uniformly distributed within the stand. Criteria are met when plants important to wildlife are productive and well distributed across the site 	<ul style="list-style-type: none"> On-site Visual Evaluation Rangeland Similarity Index Worksheet Rangeland Health Evaluation
Quality & Palatability	Plants do not have adequate quality or palatability to yield desired levels of food and/or fiber for which they are managed.	<ul style="list-style-type: none"> Criteria are met when plants are harvested at the appropriate stage of growth to achieve the desired quality. Criteria are met when nutrient applications and other soil amendments are applied to improve forage quality. 	<ul style="list-style-type: none"> Field Office Technical Guide National Range and Pasture Handbook Plant Tissue Analysis NIRS Forage Quality Analysis (NUTBAL)

Plants

Resource Concern – Management

Concern or Problem	Definition	Quality Criteria	Assessment Tool or Technique
Establishment, Growth and Harvest/Grazed	Plant management regime does not adequately provide for the establishment, growth, and proper harvest or grazing to permit desired levels of food and/or fiber production.	<ul style="list-style-type: none"> Criteria are met when plant materials are established that match the Client's management style. <u>Establishment</u> - Criteria are met when desired plant species constitute at least; <ul style="list-style-type: none"> Crop - 90% of the plant cover. Forest - 85% of the plant cover. Grazed Forest - 75% of the plant cover. Grazed Range - 75% of the plant cover. Pasture & Hay - 85% of the plant cover. <u>Growth</u> - Criteria are met when management allows productivity to equal or exceed landowners objectives while protecting the plant resource. <u>Harvest/Grazed</u> - Criteria are met when harvest/grazing occurs at a frequency, intensity, duration, and timing that meets the objectives and provides for long-term sustainability of the plant resource. 	<ul style="list-style-type: none"> On-site Visual Evaluation Client Interview Soil Survey Ecological Site Description Field Office Technical Guide Pasture Condition Worksheet National Range and Pasture Handbook Evaluation of Grazing Use Browse Resource Evaluation Rangeland Health Evaluation Wildlife Habitat Evaluation Worksheet
Pest, Pathogens, or Weeds	Insects, diseases, microorganisms, and weeds including brush and invasive plant species are having a negative impact on the desired plant species.	<ul style="list-style-type: none"> Criteria are met when pest control activities are based on scouting, pesticide label instructions, environmental considerations, production requirements, soil, climate, and other planned practices. Criteria are met when planned practices effectively reduce adverse impacts of pests to a level that production, condition, and plant quality goals are reached or maintained. 	<ul style="list-style-type: none"> On-Site Visual Evaluation Client Interview Field Office Technical Guide National Range and Pasture Handbook UF/IFAS Weed and Pest Management Guides Win-Pest
Nutrients	Adequate plant nutrients are not being provided to sustain desired levels of production.	<ul style="list-style-type: none"> Criteria are met when soil and/or plant tissue analysis techniques are used to determine plant nutrient requirements. Criteria are met when plant nutrient and soil amendments applications are applied to meet crop yield goals in accordance with plant tissue or soil test recommendations. Criteria are met when plant nutrient needs are based on realistic yield goals, site potentials and a nutrient budget 	<ul style="list-style-type: none"> Univ. of Florida Soil/Plant Tissue Test Procedures Univ. of Florida Crop Nutrient Guides and Recommendations: UF/IFAS Standardized Fertilizer Recommendations for Agronomic Crops http://edis.ifas.ufl.edu/SS163 Fertilization Guide for

		(when plant nutrients and soil amendments are applied).	<p>Vegetables Grown in Full-bed Mulch Culture http://edis.ifas.ufl.edu/WQ113</p> <ul style="list-style-type: none"> • IFAS Standardized Fertilization Recommendations for Vegetable Crops http://edis.ifas.ufl.edu/CV002 • Florida Phosphorus Index
Threatened or Endangered	Federal, state or locally listed plants are not being adequately protected.	<ul style="list-style-type: none"> • Criteria are met when listed species are managed to meet their needs. • Criteria are met when planned actions are in accordance with federal, state and locals laws. 	<ul style="list-style-type: none"> • On-Site Visual Evaluation • Field Office Technical Guide • National Biology Manual • Federal and State Technical Information • U.S. Fish and Wildlife Service-Species Information http://endangered.fws.gov/wildlife.html • South Florida Multi-Species Recovery Plan http://verobeach.fws.gov/programs/recovery/vbms5.html

Animal (Domestic or Wildlife)

Resource Concern – Habitat

Concern or Problem	Definition	Quality Criteria	Assessment Tool or Technique
Food	Quality, quantity is inadequate to meet seasonal nutritional requirements.	<ul style="list-style-type: none"> Criteria are met when food quality, quantity, availability and distribution are sufficient to sustain existing or planned animal populations indefinitely in good health. Criteria are met when nutritional requirements of animals are met so that health, growth, reproduction, lactation and general well being and body condition is maintained. Criteria are met when no more than 20% of the animals in the herd have a body condition score of 2 or less for cattle and horse and 1 or less for sheep and goats. 	<ul style="list-style-type: none"> On-site Visual Evaluation Client Interview Body Condition Score evaluation Field Office Technical Guide (FOTG) National Range & Pasture Handbook Livestock Forage Inventory Worksheet NIRS/Nutritional Balance Profile Program (NUTBAL Pro)
Cover or Shelter	Amount and location of cover or shelter is inadequate to meet requirements.	<ul style="list-style-type: none"> Criteria are met when thermal, escape, screening or nesting cover is adequately and properly distributed to sustain existing or planned animal populations. Criteria are met when constructed shelters meet legal requirements. Criteria are met when for domestic animals adequate cover and/or shelter will be provided as need to maintain overall health and condition of the animals. 	<ul style="list-style-type: none"> Grazing Lands Application software (GLA) National Biology Manual, Part FL519.1, Wildlife Habitat Evaluation Procedures Wildlife Habitat Management Institute Species Leaflets Management for Wildlife: A supplement To wildlife standard and specifications for FL Other resource inventories, procedures or recommendations provided by appropriate local state or federal resource professionals.
Water	Quality, quantity, and location of water sources are inadequate to meet requirements.	<ul style="list-style-type: none"> Criteria are met when water quality, quantity, availability and spatial distribution are sufficient to sustain existing or planned animal populations. Criteria are met when man-made water sources are installed to prevent or reduce deleterious effects to the environment. 	

Resource Concern – Management

Concern or Problem	Definition	Quality Criteria	Assessment Tool or Technique
Carrying Capacity	Population density exceeds available food, water, space, or cover/shelter requirements.	<ul style="list-style-type: none"> Criteria are met when food, water, cover and space are not limiting for existing or planned animal populations Criteria are met when planned populations of domestic animals and wildlife are in balance with the available food, space, water, or cover/shelter. Criteria are met when the numbers of domesticated animals do not exceed the capability of the resource (feed, forage, shelter, water, and competition from resident or transient wildlife) and season of use is appropriate for the area. 	<ul style="list-style-type: none"> On-Site Visual Evaluation Field Office Technical Guide Livestock Forage Inventory Worksheet Grazing Land Application (GLA) Software Florida Wildlife Habitat Evaluation Procedures National Range and Pasture Handbook National Biology Manual (NBM) - Part 519.1, Wildlife Habitat Evaluation Procedures Direct observation and/or biological data collections using Methodologies provided by NRCS and/or appropriate local State or federal resource professionals.
Population Characteristics	Population structure based on age, sex ratios, etc. is inappropriate.	<ul style="list-style-type: none"> Criteria are met when population demographics are sufficient to sustain or increase existing or planned animal populations. 	<ul style="list-style-type: none"> FOTG, National Range & Pasture Handbook, S. E. Coop. Disease Study http://www.uga.edu/scwds/ USDA-APHIS, http://www.aphis.usda.gov/.
Health & Vigor	Effects of disease, parasites, insects, poisonous plants, or other stresses are unsatisfactory.	<ul style="list-style-type: none"> Criteria are met when animals are free of known communicable diseases that pose threats to human health and interests and to domestic animals and/or wildlife. Criteria are met when negative effects of poisonous plants, disease, parasites, and insects have been reduced to acceptable levels. Criteria are met when domesticated animals are in good overall health. Criteria are met when diseases, parasites, and pests (insects, animals and plants) are actively controlled. 	<ul style="list-style-type: none"> FOTG, Section I & II GM, Part 410.22 NPPH, Part 600.5, FL-Exhibits 2-4 Endangered Species Act, As amended
Threatened or Endangered	The effects on T&E species and/or their habitat are determined to be adverse.	<ul style="list-style-type: none"> Criteria are met when listed species are managed to meet their needs. Criteria are met when planned actions are in accordance with federal, state and locals laws. 	<ul style="list-style-type: none"> FOTG, Section I & II GM, Part 410.22 NPPH, Part 600.5, FL-Exhibits 2-4 Endangered Species Act, As amended

			http://endangered.fws.gov/esa.html <ul style="list-style-type: none"> • U.S. Fish and Wildlife Service (USFWS) • USFWS, South Florida Multi-Species Recovery Plan • Florida Fish and Wildlife Conservation Commission (FWCC) http://floridaconservation.org/pubs/endanger.html
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Quality Criteria for Resource Management Systems (RMS)

Conservation planning is the process of assisting clients to solve natural resource concerns. When all 5 resources, soil, water, air, plants and animals (SWAPA) meet the minimum quality criteria defined in the previous part of Section III, we consider the client to be operating at an Resource Management System (RMS) level of management. We accomplished this by providing advice, technical assistance, and financial incentives that leads to informed decision-making and wise use of natural resources. We identify current or benchmark condition of natural resources using predictive models, resource inventories and observations. We identify resource problems and provide management alternatives to solve the resource concern(s). The client reviews their conservation planning alternatives with the planner, and then selects the conservation practices and/or management applications that best meet their management goals and conservation needs.

Considerations of social and economic factors referred to as "human considerations", are important and should be addressed early in the planning process. Economic and social issues are important in formulating a RMS plan since they are closely linked to human behavior.

To ensure that the minimum level of conservation treatment and/or management will be applied to allow for sustainability of all resources, a minimum level of NRCS conservation practice implementation and/or management is required to achieve an RMS level plan. These conservation practices are identified as **“Essential”**, and **MUST** be included within all conservation plans according to land use and installed and/or applied according to the NRCS conservation practice standards located in Section IV of the Field Office Technical Guide (FOTG).

A second level of conservation practices, **“Facilitating”**, are provided to assist the conservation planner and their clients to select applications and management that will, accelerate, assist, and/or enhance the installation or success of implementing the Essential conservation practices. Facilitating conservation practices may be implemented to address resource concerns independently or in combination with Essential conservation practices, but they are not required to attain a RMS level of management.

In Florida, NRCS recognizes the following land uses for which Quality Criteria, Essential and Facilitating conservation practices have been designated to achieve a RMS level plan.

- | | |
|-----------------------|----------------------------------|
| 1. Confined Livestock | 9. Native or Naturalized Pasture |
| 2. Crop | 10. Natural Area |
| 3. Forest | 11. Pasture |
| 4. Grazed Forest | 12. Recreation |
| 5. Grazed Range | 13. Urban |
| 6. Hay | 14. Water |
| 7. Headquarters | 15. Watershed Protection |
| 8. Mined | 16. Wildlife |

Confined Livestock

Definition: A land use dedicated to the facilitation and production of high intensity animal agriculture in a containment facility where nutritional requirements are obtained from other lands or feed sources. (Includes areas such as milking barns, holding lots, heavy use areas, waste treatment lagoons, composting facilities, chicken houses, and farrowing houses)

RMS Quality Criteria: An RMS is achieved on Confined Livestock land when quality criteria is met for each of the 5 natural resources (SWAPA) and when human concerns associated with the individual client and his/her operation are assessed. Operation is in compliance with all local, state, and federal laws, rules, and/or policies.

Essential Conservation Practices:

All Wastes Removed

Heavy Use Area Protection (Code 561)
Manure Transfer (Code 634)
Waste Storage Facility (Code 313) and/or Waste Treatment Lagoon (Code 359)
Watering Facility (Code 614) or other dependable source of livestock water.
Waste Utilization (Code 633)

Wastes Utilized On-Farm

Heavy Use Area Protection (Code 561)
Manure Transfer (Code 634)
Nutrient Management (Code 590)
Waste Storage Facility (Code 313) and/or Waste Treatment Lagoon (Code 359)
Waste Utilization (Code 633)
Watering Facility (Code 614) or other dependable source of livestock water.

Facilitating Conservation Practices:

Access Road (Code 560)	Mole Drain (Code 482)
Animal Mortality Freezers (Code 774)	Pest Management (Code 595)
Animal Trails and Walkways (Code 575)	Pipeline (Code 516)
Composting Facility (Code 317)	Pond (Code 378)
Constructed Wetland Code 656)	Pond Sealing or Lining (Code 521)
Critical Area Planting (Code 342)	Riparian Forest Buffer (Code 391)
Diversion (Code 362)	Roof Runoff Structure (Code 558)
Drainage Water Management (Code 554)	Runoff Management System (Code 570)
Fence (Code 382)	Sediment Basin (Code 350)
Field Border (Code 386)	Structure for Water Control (Code 587)
Filter Strip (Code 393)	Underground Outlet (Code 620)
Grade Stabilization Structure (Code 410)	Use Exclusion (Code 472)
Incinerator Code (769)	Waste Field Storage (Code 749)
Irrigation Water Mgt., (Code 449)	Waste Treatment Lagoon (Code 359)
Land Clearing (Code 460)	Waste Treatment Strip (Code 635)
Livestock Cooling Pond (Code 779)	Water and Sediment Control Basin (Code 638)

Livestock Shade Structure (Code 717)

Crop

Definition: A land used primarily for the production of adapted, cultivated, crops for harvest, alone or in association with sod crops, includes fruit and nut production in groves and orchards, and ornamental/nursery crops.

RMS Quality Criteria: An RMS is achieved on Crop land when quality criteria is met for each of the 5 natural resources (SWAPA) and when human concerns associated with the individual client and his/her operation are assessed. Operation is in compliance with all local, state, and federal laws, rules, and/or policies.

Essential Conservation Practices:

Cropland

Residue Management, Seasonal
(Code 344)
Conservation Crop Rotation (Code
328)
Nutrient Management (Code 590)
Pest Management (Code 595)

Groves and Orchards

Bedding (Code 310)
Nutrient Management (Code 590)
Pest Management (Code 595)
Surface Drainage, Field Ditch
(Code 607) Surface Drainage,
Main or Lateral (Code 608)

Ornamental/Nursery

Nutrient Management (Code
590)
Pest Management (Code 595)

Facilitating Conservation Practices:

Access Road (Code 560)
Agrichemical Handling Facility (Code 702)
Agrichemical Mixing Station (Code 703)
Bedding (Code 310)
Chiseling & Subsoiling (Code 324)
Contour Farming (Code 330)
Contour Stripcropping (Code 585)
Cover Crop (Code 340)
Critical Area Planting (Code 342)
Diversion (Code 362)
Drainage Water Management (Code 554)
Field Border (Code 386)
Filter Strip (Code 393)
Grassed Waterway (Code 412)
Heavy Use Area Protection (Code 561)
Herbaceous Wind Barriers (Code 603)
Irrigation Canal or Lateral (Code 320)
Irrigation Field Ditch (Code 388)
Irrigation Land Leveling (Code 464)
Irrigation Pit or Regulating Reservoir A or B (Code 552)
Irrigation Storage Reservoir (Code 436)
Irrigation System, Microirrigation (Code 441)
Irrigation System, Sprinkler (Code 442)

Irrigation System, Sub-irrigation (Code 754)
Irrigation System, Surface & Subsurface (443)
Irrigation System, Tailwater Recovery (Code 447)
Irrigation. Water Conveyance, Ditch & Canal Lining (Code 428)
Irrigation Water Conveyance, Pipeline AA - HH (Code 430)
Irrigation Water Management (Code 449)
Mole Drain (Code 482)
Mulching (Code 484)
Riparian Forest Buffer (Code 391)
Residue Management (Code 329 A, B, C)
Stripcropping, Contour (Code 585)
Stripcropping, Field (Code 586)
Stripcropping, Wind (Code 589)
Structure for Water Control (Code 587)
Terrace (Code 600)
Waste Utilization (Code 633)
Windbreak/Shelterbelt Est. (Code 380)
Windbreak/Shelterbelt Renovation (Code 650)

Forest

Definition: Land managed primarily for native or adapted trees with the goal to produce forest products.

RMS Quality Criteria: An RMS is achieved on Forest land when quality criteria is met for each of the 5 natural resources (SWAPA) and when human concerns associated with the individual client and his/her operation are assessed. Operation is in compliance with all local, state, and federal laws, rules, and/or policies.

Essential Conservation Practices:

- Forest Stand Improvement (Code 666)
- * Forest Site Preparation (Code 490)
- * Tree and Shrub Establishment (Code 612)

** Only required on sites where the establishment of trees or shrubs are planned.*

Facilitating Conservation Practices:

- | | |
|---|--|
| Access Road (Code 560) | Nutrient Management (Code 590) |
| Bedding (Code 310) | Pond (Code 378) |
| Brush Management (Code 314) | Pond Sealing or Lining (Code 521) |
| Critical Area Planting (Code 342) | Pest Management (Code 595A) |
| Diversion (Code 362) | Prescribed Burning (Code 338) |
| Fence (Code 382) | Prescribed Grazing (Code 528A) |
| Filter Strip (Code 393) | Riparian Forest Buffer (Code 391) |
| Firebreak (Code 394) | Streambank & Shoreline Protection (Code 580) |
| Forest Harvest Trails & Landings (Code 655) | Tree/Shrub Establishment (Code 612) |
| Forest Site Preparation (Code 490) | Tree/Shrub Pruning (Code 660A) |
| Grade Stabilization Structure (Code 410) | Use Exclusion (Code 472) |
| Heavy Use Area Protection (Code 561) | Watering Facility (Code 614) |
| Mulching (Code 484) | Wetland Wildlife Habitat Management (Code 644) |
| | Upland Wildlife Habitat Management (Code 645) |

Grazed Forest

Definition: Forest land that produces understory vegetation that is used for the production of livestock.

RMS Quality Criteria: An RMS is achieved on Grazed Forest land when quality criteria is met for each of the 5 natural resources (SWAPA) and when human concerns associated with the individual client and his/her operation are assessed. Operation is in compliance with all local, state, and federal laws, rules, and/or policies.

Essential Conservation Practices:

Prescribed Grazing (Code 528A)
Watering Facility (Code 614) or other dependable source of livestock water.

Facilitating Conservation Practices:

Access Road (Code 560)
Animal Trails & Walkways (Code 575)
Brush Management (Code 314)
Critical Area Planting (Code 342)
Diversion (Code 362)
Fence (Code 382)
Firebreak (Code 392)
Forest Stand Improvement (Code 666)
Grade Stabilization Structure (Code 410)
Grazing Land Mechanical Treatment (Code 548)
Pest Management (Code 595A)
Pipeline (Code 516)
Pond (Code 378)
Pond Sealing or Lining (Code 521)
Prescribed Burning (Code 338)
Range Planting (Code 550)
Riparian Forest Buffer (Code 391)
Spring Development (Code 574)
Steambank & Shoreline Protection (Code 580)
Structure for Water Control (Code 587)
Upland Wildlife Habitat Management (Code 645)
Well (Code 642)
Wetland Wildlife Habitat Management (Code 644)

Grazed Range

Definition: Land on which the historic climax plant community is predominantly grasses, grasslike plants, forbs or shrubs. Includes lands revegetated naturally or artificially when routine management of that vegetation is accomplished mainly through manipulation of grazing.

RMS Quality Criteria: An RMS is achieved on Grazed Range land when quality criteria is met for each of the 5 natural resources (SWAPA) and when human concerns associated with the individual client and his/her operation are assessed. Operation is in compliance with all local, state, and federal laws, rules, and/or policies.

Essential Conservation Practices:

Prescribed Burning (Code 338)
Prescribed Grazing (Code 528A)
Watering Facility (Code 614) or other dependable source of livestock water.

Facilitating Conservation Practices:

Access Road (Code 560)
Animal Trails & Walkways (Code 575)
Brush Management (Code 314)
Critical Area Planting (Code 342)
Diversion (Code 362)
Fence (Code 382)
Firebreak (Code 392)
Grade Stabilization Structure (Code 410)
Grazing Land Mechanical Treatment (Code 548)
Pest Management (Code 595A)
Pipeline (Code 516)
Pond (Code 378)
Pond Sealing or Lining (Code 521)
Riparian Forest Buffer (Code 391)
Spring Development (Code 574)
Steambank & Shoreline Protection (Code 580)
Structure for Water Control (Code 587)
Range Planting (Code 550)
Upland Wildlife Habitat Management (Code 645)
Well (Code 642)
Wetland Wildlife Habitat Management (Code 644)

Hay

Definition: Land managed primarily for the production of grasses, legumes, or comparatively fine-stemmed forbs cut and cured (dried) to preserve forage for later use as a livestock feed.

RMS Quality Criteria: An RMS is achieved on Hay land when quality criteria is met for each of the 5 natural resources (SWAPA) and when human concerns associated with the individual client and his/her operation are assessed. Operation is in compliance with all local, state, and federal laws, rules, and/or policies.

Essential Conservation Practices:

Forage Harvest Management (Code 511)
Nutrient Management (Code 590)
Pest Management (Code 595)

Facilitating Conservation Practices:

Critical Area Planting (Code 342)	Riparian Forest Buffer (Code 391)
Diversion (Code 362)	Streambank & Shoreline Protection (Code 580)
Fence (Code 382)	Structure for Water Control (Code 587)
Filter Strip (Code 393)	Subsurface Drain (Code 606)
Grade Stabilization Structure (Code 410)	Subsurface Drain, Field Ditch (Code 607)
Grassed Waterway (Code 412)	Subsurface Drain, Main or Lateral (Code 608)
Heavy Use Area Protection (Code 561)	Use Exclusion (Code 472)
Hedgerow Planting (Code 422)	Upland Wildlife Habitat Management (Code 645)
Irrigation Water Management (Code 449)	Water & Sediment Control Basin (Code 638)
Irrigation Canal or Lateral (Code 320)	Watering Facility (Code 614)
Irrigation Field Ditch (Code 388)	Waste Management System (Code 312)
Irrigation Land Leveling (Code 464)	Wetland Wildlife Habitat Management (Code 644)
Irrigation System, Sprinkler (Code 442)	Well (Code 642)
Irrigation System, Subirrigation (Code 754)	
Irrigation System, Surface & Subsurface (443)	
Irrigation Water Conveyance, Pipeline (Code 430)	
Pasture & Hay Planting (Code 512)	
Pipeline (Code 516)	
Pond (Code 378)	
Pond Sealing or Lining (Code 521)	
Prescribed Burning (Code 338)	
Prescribed Grazing (Code 528A)	
Pumping Plant for Water Control (Code 533)	

Headquarters

Definition: Land used for dwellings, barns, livestock pens, corrals, equipment shed, or other facilities used in the connection with farm and ranch managed.

RMS Quality Criteria: An RMS is achieved for the Headquarters when quality criteria is met for each of the 5 natural resources (SWAPA) and when human concerns associated with the individual client and his/her operation are assessed. Operation is in compliance with all local, state, and federal laws, rules, and/or policies.

Essential Conservation Practices:

Heavy Use Area Protection (Code 561)

Facilitating Conservation Practices:

Access Road (Code 560)
Constructed Wetland Code 656)
Critical Area Planting (Code 342)
Diversion (Code 362)
Fence (Code 382)
Filter Strip (Code 393)
Grade Stabilization Structure (Code 410)
Mole Drain (Code 482)
Pest Management (Code 595)
Pipeline (Code 516)
Pond (Code 378)
Pond Sealing or Lining (Code 521)
Roof Runoff Structure (Code 558)
Runoff Management System (Code 570)
Structure for Water Control (Code 587)
Underground Outlet (Code 620)
Use Exclusion (Code 472)

Mined

Definition: Land on which the soil has been disturbed by the mining of minerals.

RMS Quality Criteria: An RMS is achieved on Mined land when quality criteria is met for each of the 5 natural resources (SWAPA) and when human concerns associated with the individual client and his/her operation are assessed. Operation is in compliance with all local, state, and federal laws, rules, and/or policies.

Essential Conservation Practices:

Critical Area Planting (Code 342)

Facilitating Conservation Practices:

Diversion (Code 362)
 Grade Stabilization Structure (Code 410)
 Grassed Waterway (Code 412)
 Heavy Use Area Protection (Code 561)
 Land Smoothing (Code 466)
 Line Waterway Outlet (Code 468)
 Nutrient Management (Code 590)
 Pasture & Hay Planting (Code 512)
 Pest Management (Code 595A)
 Prescribed Burning (Code 338)
 Riparian Forest Buffer (Code 391)
 Sediment Basin (Code 350)
 Structure for Water Control (Code 587)
 Tree/Shrub Establishment (Code 612)
 Upland Wildlife Habitat Management (Code 645)
 Use Exclusion (Code 472)
 Water & Sediment Control Basin (Code 638)
 Wetland Wildlife Habitat Management (Code 644)

Native or Naturalized Pasture

Definition: Forest land that is used primarily for the production of forage for grazing by livestock rather than for the production of wood products. Overstory trees are removed or managed to promote the native and introduced understory vegetation occurring on the site. This vegetation is managed for its forage value through the use of grazing management principles.

RMS Quality Criteria: An RMS is achieved on Native (Naturalized) Pasture land when quality criteria is met for each of the 5 natural resources (SWAPA) and when human concerns associated with the individual client and his/her operation are assessed. Operation is in compliance with all local, state, and federal laws, rules, and/or policies.

Essential Conservation Practices:

Brush Management (Code 314)
Prescribed Grazing (Code 528A)
Watering Facility (Code 614) or other dependable source of livestock water

Facilitating Conservation Practices:

Access Road (Code 560) Water & Sediment Control Basin (Code 638)
Animal Trails & Walkways (Code 575) Well (Code 642)
Critical Area Planting (Code 342)
Diversion (Code 362)
Fence (Code 382)
Firebreak (Code 392)
Grade Stabilization Structure (Code 410)
Grazing Land Mechanical Treatment (Code 548)
Nutrient Management (Code 590)
Pasture & Hay Planting (Code 512)
Pest Management (Code 595A)
Pipeline (Code 516)
Pond (Code 378)
Pond Sealing or Lining (Code 521)
Prescribed Burning (Code 338)
Range Planting (Code 550)
Spring Development (Code 574)
Riparian Forest Buffer (Code 391)
Steambank & Shoreline Protection (Code 580)
Structure for Water Control (Code 587)
Tree/Shrub Establishment (Code 612)
Upland Wildlife Habitat Management (Code 645)
Use Exclusion (Code 472)
Wetland Wildlife Habitat Management (Code 644)

Natural Area

Definition: Land or water used for the preservation, protection and observation of the existing natural resources, archaeological or historical interpretation, natural resource interpretation, or for aesthetic value. Some of these may be officially designated by legislation or other authorities.

RMS Quality Criteria: An RMS is achieved on Natural Areas when quality criteria is met for each of the 5 natural resources (SWAPA) and when human concerns associated with the individual client and his/her operation are assessed. Operation is in compliance with all local, state, and federal laws, rules, and/or policies.

Essential Conservation Practices:

None identified due to the variable nature of this land use designation.

Facilitating Conservation Practices:

Access Road (Code 560)	Pond (Code 378)
Animal Trails & Walkways (Code 575)	Pond Sealing or Lining (Code 521)
Brush Management (Code 314)	Prescribed Burning (Code 338)
Clearing & Snagging (Code 326)	Riparian Forest Buffer (Code 391)
Critical Area Planting (Code 342)	Spring Development (Code 574)
Dams, Multi-Purpose (Code 349)	Steambank & Shoreline Protection (Code 580)
Dike (Code 356)	Structure for Water Control (Code 587)
Diversion (Code 362)	Range Planting (Code 550)
Fence (Code 382)	Tree/Shrub Establishment (Code 612)
Field Border (Code 386)	Upland Wildlife Habitat Management (Code 645)
Firebreak (Code 392)	Well (Code 642)
Forest Stand Improvement (Code 666)	Wetland Creation (Code 658)
Grade Stabilization Structure (Code 410)	Wetland Enhancement (Code 659)
Grassed Waterway (Code 412)	Wetland Restoration (Code 657)
Land Clearing (Code 460)	Wetland Wildlife Habitat Management (Code 644)
Nutrient Management (Code 590)	Wildlife Watering Facility (Code 614)
Pest Management (Code 595)	

Pasture

Definition: Grazing land composed of introduced or domesticated native forage species that are used primarily for the production of domestic livestock. They receive periodic renovation and/or cultural treatments such as tillage, fertilization, mowing, weed control, and may be irrigated. This land use is not considered to be in rotation with crops.

RMS Quality Criteria: An RMS is achieved on Pasture land when quality criteria is met for each of the 5 natural resources (SWAPA) and when human concerns associated with the individual client and his/her operation are assessed. Operation is in compliance with all local, state, and federal laws, rules, and/or policies.

Essential Conservation Practices:

- Nutrient Management (Code 590)
- Pest Management (Code 595A)
- Prescribed Grazing (Code 528A)
- Watering Facility (Code 614) or other dependable source of livestock water

Facilitating Conservation Practices:

- Access Road (Code 560)
- Animal Trails & Walkways (Code 575)
- Brush Management (Code 314)
- Critical Area Planting (Code 342)
- Diversion (Code 362)
- Forage Harvest Management (Code 511)
- Fence (Code 382)
- Firebreak (Code 392)
- Grade Stabilization Structure (Code 410)
- Grazing Land Mechanical Treatment (Code 548)
- Heavy Use Area Protection (Code 561)
- Livestock Shade Structure (Code 717)
- Pasture & Hay Planting (Code 512)
- Pipeline (Code 516)
- Pond (Code 378)
- Pond Sealing or Lining (Code 521)
- Prescribed Burning (Code 338)
- Riparian Forest Buffer (Code 391)
- Steambank & Shoreline Protection (Code 580)
- Structure for Water Control (Code 587)
- Upland Wildlife Habitat Management (Code 645)
- Water & Sediment Control Basin (Code 638)
- Well (Code 642)
- Wetland Wildlife Habitat Management (Code 644)

Recreation

Definition: Land used or usable primarily for outdoor recreation activities and facilities.

RMS Quality Criteria: An RMS is achieved on Recreation land when quality criteria is met for each of the 5 natural resources (SWAPA) and when human concerns associated with the individual client and his/her operation are assessed. Operation is in compliance with all local, state, and federal laws, rules, and/or policies.

Essential Conservation Practices:

Low & Medium Intensity Areas

Critical Area Planting (Code 342)
Recreation Trail & Walkway (Code 568)
Recreation Area Improvement (Code 562)

High Intensity Areas

Access Road (Code 560)
Critical Area Planting (Code 342)
Heavy Use Protection Area (Code 561)
Recreation Area Improvement (Code 562)
Recreation Trail & Walkway (Code 568)

Facilitating Conservation Practices:

Animal Trails & Walkways (Code 575)	Well (Code 642)
Brush Management (Code 314)	Wetland Creation (Code 658)
Clearing & Snagging (Code 326)	Wetland Enhancement (Code 659)
Diversion (Code 362)	Wetland Restoration (Code 657)
Fence (Code 382)	Wetland Wildlife Habitat Management (Code 644)
Firebreak (Code 392)	Upland Wildlife Habitat Management (Code 645)
Grade Stabilization Structure (Code 410)	
Grassed Waterway (Code 412)	
Heavy Use Area Protection (Code 561)	
Land Clearing (Code 460)	
Nutrient Management (Code 590)	
Pest Management (Code 595A)	
Pond (Code 378)	
Pond Sealing or Lining (Code 521)	
Prescribed Burning (Code 338)	
Riparian Forest Buffer (Code 391)	
Spring Development (Code 574)	
Steambank & Shoreline Protection (Code 580)	
Structure for Water Control (Code 587)	
Range Planting (Code 550)	
Recreation Land Grading & Shaping (Code 562)	
Tree/Shrub Establishment (Code 612)	

Urban

Definition: Land occupied by buildings and related facilities used for residences, industrial sites, institutional sites, public highways, airports and similar uses associated with towns and cities.

RMS Quality Criteria: An RMS is achieved on Urban land when quality criteria is met for each of the 5 natural resources (SWAPA) and when human concerns associated with the individual client and his/her operation are assessed. Operation is in compliance with all local, state, and federal laws, rules, and/or policies.

Essential Conservation Practices:

Heavy Use Area Protection (Code 561)

Facilitating Conservation Practices:

Access Road (Code 560)
Brush Management (Code 314)
Critical Area Planting (Code 342)
Diversion (Code 362)
Fence (Code 382)
Firebreak (Code 392)
Grade Stabilization Structure (Code 410)
Pipeline (Code 516)
Pond (Code 378)
Pond Sealing or Lining (Code 521)
Riparian Forest Buffer (Code 391)
Steambank & Shoreline Protection (Code 580)
Structure for Water Control (Code 587)
Upland Wildlife Habitat Management (Code 645)
Water & Sediment Control Basin (Code 638)
Well (Code 642)
Wetland Wildlife Habitat Management (Code 644)

Water

Definition: A geographic area whose dominant characteristic is open water, but which may include a large proportion of intermingled land, including coastal marshlands.

RMS Quality Criteria: An RMS is achieved on Water and associated intermingled land when quality criteria is met for each of the 5 natural resources (SWAPA) and when human concerns associated with the individual client and his/her operation are assessed. Operation is in compliance with all local, state, and federal laws, rules, and/or policies.

Essential Conservation Practices:

None identified due to the variable nature of this land use designation.

Facilitating Conservation Practices:

Access Road (Code 560)
Brush Management (Code 314)
Critical Area Planting (Code 342)
Diversion (Code 362)
Fence (Code 382)
Firebreak (Code 392)
Grade Stabilization Structure (Code 410)
Riparian Forest Buffer (Code 391)
Steambank & Shoreline Protection (Code 580)
Structure for Water Control (Code 587)
Upland Wildlife Habitat Management (Code 645)
Wetland Wildlife Habitat Management (Code 644)

Watershed Protection

Definition: Land managed and used specifically for water, but which may be a geographic area whose dominant characteristic is open water, but which may include a large proportion of intermingled land, including coastal marsh lands.

RMS Quality Criteria: An RMS is achieved on Watershed Protection land when quality criteria is met for each of the 5 natural resources (SWAPA) and when human concerns associated with the individual client and his/her operation are assessed. Operation is in compliance with all local, state, and federal laws, rules, and/or policies.

Essential Conservation Practices:

None identified due to the variable nature of this land use designation.

Facilitating Conservation Practices:

Access Road (Code 560)
 Brush Management (Code 314)
 Clearing & Snagging (Code 326)
 Critical Area Planting (Code 342)
 Diversion (Code 362)
 Fence (Code 382)
 Firebreak (Code 392)
 Grade Stabilization Structure (Code 410)
 Grassed Waterway (Code 412)
 Heavy Use Area Protection (Code 561)
 Land Clearing (Code 460)
 Nutrient Management (Code 590)
 Pasture and Hayland Planting (Code 512)
 Pest Management (Code 595A)
 Pond (Code 378)
 Pond Sealing or Lining (Code 521)
 Prescribed Burning (Code 338)
 Range Planting (Code 550)
 Recreation Land Grading & Shaping (Code 562)
 Riparian Forest Buffer (Code 391)
 Spring Development (Code 574)
 Steambank & Shoreline Protection (Code 580)
 Structure for Water Control (Code 587)
 Tree/Shrub Establishment (Code 612)
 Upland Wildlife Habitat Management (Code 645)
 Wetland Wildlife Habitat Management (Code 644)
 Well (Code 642)
 Wetland Creation (Code 658)
 Wetland Enhancement (Code 659)
 Wetland Restoration (Code 657)

Wildlife

Definition: Land or water used, protected and managed primarily as habitat for wildlife.

RMS Quality Criteria: An RMS is achieved on Wildlife land when quality criteria is met for each of the 5 natural resources (SWAPA) and when human concerns associated with the individual client and his/her operation are assessed. Operation is in compliance with all local, state, and federal laws, rules, and/or policies.

Essential Conservation Practices:

Upland Wildlife Habitat Management (Code 645)
Wetland Wildlife Habitat Management (Code 644)

Facilitating Conservation Practices:

Access Road (Code 560)	Wildlife Watering Facility (Code 614)
Animal Trails & Walkways (Code 575)	Forest Stand Improvement (Code 666)
Brush Management (Code 314)	
Clearing & Snagging (Code 326)	
Critical Area Planting (Code 342)	
Dams, Multi-Purpose (Code 349)	
Dike (Code 356)	
Diversion (Code 362)	
Fence (Code 382)	
Field Border (Code 386)	
Firebreak (Code 392)	
Grade Stabilization Structure (Code 410)	
Grassed Waterway (Code 412)	
Land Clearing (Code 460)	
Nutrient Management (Code 590)	
Pest Management (Code 595A)	
Pond (Code 378)	
Pond Sealing or Lining (Code 512)	
Prescribed Burning (Code 338)	
Riparian Forest Buffer (Code 391)	
Spring Development (Code 574)	
Steambank & Shoreline Protection (Code 580)	
Structure for Water Control (Code 587)	
Range Planting (Code 550)	
Tree/Shrub Establishment (Code 612)	
Well (Code 642)	
Wetland Creation (Code 658)	
Wetland Enhancement (Code 659)	
Wetland Restoration (Code 657)	